

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An image composition method for generating a strobe composite image from a plurality of frames of a moving image, the method comprising:

selecting a first frame from the plurality of frames of the moving image;

determining a plurality of second frames relating to the first frame;

setting a superposing manner for the strobe composite image, the manner including a manner of superposing a frame at a later time on a frame at an earlier time in turn, or a manner of superposing a frame at an earlier time on a frame at a later time in turn; and

generating the strobe composite image by superposing the plurality of second frames in accordance with the set superposing manner.

Claim 2 (Original): A method according to claim 1, wherein determining the plurality of second frames includes determining the second frames based on a reference frame whose time corresponds to the time obtained by shifting the time of the first frame a certain time.

Claims 3-4 (Canceled).

Claim 5 (Currently Amended): A method according to claim 1, ~~wherein selecting the first frame includes~~ further comprising:

~~selecting a frame of interest in which a user is interested;~~

displaying ~~the a~~ a frame of interest of user's choice in the moving image, and ~~the a~~ a frame of the near the frame of interest; and

~~determining the frame of interest as the first frame.~~

receiving, from an input device, an instruction of designating one of the displayed frames as said first frame.

Claim 6 (Canceled).

Claim 7 (Original): A method according to claim 6, further comprising:
recording setup information of the superposing manner.

Claim 8 (Original): A method according to claim 7, further comprising:
generating another strobe composite image by applying the setup information to another moving image.

Claim 9 (Original): A method according to claim 1, further comprising:
displaying the strobe composite image;
designating one of the plurality of second frames as a designated frame; and
changing a superposing order of the designated frame to an order different from a superposing order before designation.

Claim 10 (Currently Amended): An image composition method comprising:
inputting a moving image from a camera which captures the moving image;
holding latest N frames (N is a natural number) of the moving image in a queue;
accepting a one-click-instruction from a user; and
generating a strobe composite image by superposing the latest N frames in response to the one-click-instruction.

Claim 11 (Currently Amended): An image composition method comprising:
inputting a moving image from a camera which captures the moving image;
holding latest N frames (N is a natural number) of the moving image in a queue;
detecting from the latest N frames a feature frame that conforms to a strobe image composition condition; and
generating a strobe composite image by superposing the latest N frames when the feature frame is detected.

Claims 12-13 (Canceled).

Claim 14 (Currently Amended): An image composition method comprising:
inputting a first moving image;
~~inputting a second moving image;~~
inputting answer object regions for respective frames of the first moving image;
extracting a plurality of answer object images from the respective frames of the first moving image using the answer object regions;
generating an answer strobe composite image in which the plurality of answer object images are superposed;
determining an extraction parameter which depends on the answer strobe composite image;
inputting a second moving image;
extracting object images from respective frames of the second moving image using the extraction parameter; and

generating a strobe composite image in which the object images extracted from the respective frames of the second moving image are superposed, and

wherein the determining the extraction parameter comprises:

(a) detecting temporary object regions from the respective frames of the first moving image using a temporary extraction parameter;

(b) extracting a plurality of temporary object images from the respective frames of the first moving image using the temporary object regions;

(c) generating a temporary strobe composite image in which the plurality of temporary object images are superposed;

(d) calculating an error between the answer strobe composite image and the temporary strobe composite image; and

repeating (a) to (d) while changing the temporary extraction parameter, and determining the temporary extraction parameter which minimizes the error as the extraction parameter.

Claim 15 (Canceled).

Claim 16 (Currently Amended): An image composition method for generating a strobe composite image by superposing a plurality of frames of a moving image, the method comprising:

displaying respective frames of the moving image sequentially;

accepting an instruction from an input device;

selecting a reference frame from the respective displayed frames displayed, when the instruction is accepted;

determining a plurality of frames to be subjected to strobe composition based on the reference frame; ~~and~~

generating a strobe composite image by superposing the plurality of determined frames; and

determining a switching frame at which a superposing manner is switched, and
wherein the generating the strobe composition image includes switching the
superposing manner between an overlay manner and an underlay manner before and after the
switching frame.

Claim 17 (Original): A method according to claim 16, further comprising:
setting a time interval, between the respective frames, for displaying the respective frames.

Claim 18 (Canceled).

Claim 19 (Currently Amended): An image composition method comprising:
determining frames corresponding to start points of strobe composition;
generating strobe composite images by superposing frames in turn based on each of the start points; and
displaying the strobe composite images sequentially.; and
determining a switching frame at which a superposing manner is switched, and
wherein generating the strobe composite images includes switching the superposing
manner between an overlay manner and an underlay manner before and after the switching
frame.

Claims 20-22 (Canceled).

Claim 23 (Original): An image composition method for generating a strobe composite image by superposing a plurality of frames of a moving image, the method comprising:

inputting a feature point of an object;

obtaining a locus pattern by tracing the feature point in the strobe composite image;

and

analyzing a motion pattern of the object on the basis of the obtained locus pattern.

Claim 24 (Canceled).

Claim 25 (Currently Amended): An image composition apparatus for generating a strobe composite image from a plurality of frames of a moving image, the apparatus comprising:

a selection unit configured to select a first frame from the plurality of frames of the moving image;

a determination unit configured to determine a plurality of second frames related to the first frame; and

a setting unit configured to set a superposing manner used upon superposing the plurality of second frames, the manner including a manner of superposing a frame at a later time on a frame at an earlier time in turn, or a manner of superposing a frame at an earlier time on a frame at a later time in turn; and

a generation unit configured to generate the strobe composite image by superposing the plurality of second frames in accordance with the set superposing manner.

Claim 26-27 (Canceled).

Claim 28 (Currently Amended): An image composition apparatus, comprising:
an input unit configured to input a moving image, the input unit including a camera which captures the moving image;
an image holding unit including a queue, and configured to hold latest N frames (N is a natural number) of the moving image;
an accepting unit configured to accept a one-click-instruction from a user; and
an image composition unit configured to generate a strobe composite image from the latest N frames stored in the image holding unit in response to the one-click-instruction.

Claim 29 (Currently Amended): An image composition apparatus, comprising:
a unit configured to input a first moving image and a second moving image;
a unit configured to input answer object regions for respective frames of the first moving image;
a unit configured to extract a plurality of answer object images from the respective frames of the first moving image using the answer object regions;
a unit configured to generate an answer strobe composite image in which the plurality of answer object images are superposed;
a unit configured to determine an extraction parameter which depends on the answer strobe composite image;

a unit configured to extract object regions from respective frames of the second moving image using the extraction parameter; and

a unit configured to generate a strobe composite image in which the object images extracted from the respective frames of the second moving image are superposed, and

wherein the extraction parameter is determined by:

(a) detecting temporary object regions from the respective frames of the first moving image using a temporary extraction parameter;

(b) extracting a plurality of temporary object images from the respective frames of the first moving image using the temporary object regions;

(c) generating a temporary strobe composite image in which the plurality of temporary object images are superposed;

(d) calculating an error between the answer strobe composite image and the temporary strobe composite image; and

repeating (a) to (d) while changing the temporary extraction parameter, and determining the temporary extraction parameter which minimizes the error as the extraction parameter.

Claim 30 (Currently Amended): An image composition apparatus for generating a strobe composite image by superposing a plurality of frames of a moving image, comprising:

a display unit configured to sequentially display respective frames of the moving image;

an input device to accept an instruction;

a reference frame selection unit configured to select a reference frame from the respective displayed frames ~~displayed~~, when the instruction is accepted;

an objective frame determination unit configured to determine a plurality of frames to be subjected to strobe composition based on the reference frame; ~~and~~

a strobe composition unit configured to generate a strobe composite image by superposing the plurality of frames determined by the objective frame determination unit; and

a switching frame determination unit configured to determine a switching frame at which a superposing manner is switched, and

wherein the superposing manner is switched between an overlay manner and an underlay manner before and after the switching frame.

Claim 31 (Currently Amended): An image composition apparatus, comprising:

a start point determination unit configured to determine frames corresponding to start points of strobe composition from a plurality of frames of a moving image;

a generation unit configured to generate strobe composite images by superposing frames in turn based on each of the start points; ~~and~~

a display unit configured to sequentially display the strobe composite images; and
a switching frame determination unit configured to determine a switching frame at which a superposing manner is switched, and

wherein the generation unit is further configured to switch the superposing manner between an overlay manner and an underlay manner before and after the switching frame.

Claim 32 (Original): An image composition apparatus for generating a strobe composite image by superposing a plurality of frames of a moving image, comprising:

an input unit configured to input a feature point of an object;

a feature point tracing unit configured to obtain a locus pattern by tracing the feature point in the strobe composite image; and

a motion pattern analysis unit configured to analyze a motion pattern of the object on the basis of the obtained locus pattern.

Claim 33 (Canceled).

Claim 34 (Currently Amended): A program product comprising a computer usable medium having computer readable program code means for causing a computer to generate a strobe composite image from a plurality of frames of a moving image, the computer readable program code means in the computer program product comprising:

program code means for causing a computer to select a first frame from the plurality of the moving image;

program code means for causing a computer to determine a plurality of second frames relating to the first frame; and

program code means for causing a computer to set a superposing manner for the strobe composite image, the manner including a manner of superposing a frame at a later time on a frame at an earlier time in turn, or a manner of superposing a frame at an earlier time on a frame at a later time in turn; and

program code means for causing a computer to generate the strobe composite image by superposing the plurality of second frames in accordance with the set superposing manner.

Claims 35 and 36 (Canceled).

Claim 37 (Currently Amended): A program product comprising a computer usable medium having computer readable program code means, the computer readable program code means in the computer program product comprising:

program code means for causing a computer to input a moving image from a camera which captures the moving image;

program code means for causing a computer to hold latest N frames (N is a natural number) of the moving image in a queue;

program code means for causing a computer to accept a one-click-instruction from a user; and

program code means for causing a computer to composite a strobe composite image by superposing the latest N frames in response to the one-click-instruction.

Claim 38 (Currently Amended): A program product comprising a computer usable medium having computer readable program code means, the computer readable program code means in the computer program product comprising:

program code means for causing a computer to input a first moving image and a second moving image;

program code means for causing a computer to input answer object regions for respective frames of the first moving image;

program code means for causing a computer to extract a plurality of answer object images from the respective frames of the first moving image using the answer object regions;

program code means for causing a computer to generate an answer strobe composite image in which the plurality of answer object images are superposed;

(a) detecting temporary object regions from the respective frames of the first moving image using a temporary extraction parameter;

(b) extracting a plurality of temporary object images from the respective frames of the first moving image using the temporary object regions;

(c) generating a temporary strobe composite image in which the plurality of temporary object images are superposed;

(d) calculating an error between the answer strobe composite image and the temporary strobe composite image; and

repeating (a) to (d) while changing the temporary extraction parameter, and determining the temporary extraction parameter which minimizes the error as the extraction parameter.

Claim 39 (Currently Amended): A program product comprising a computer usable medium having computer readable program code means for causing a computer to generate a strobe composite image by superposing a plurality of frames of a moving image, the computer readable program code means in the computer program product comprising:

program code means for causing a computer to sequentially display respective frames of the moving image;

program code means for causing a computer to accept an instruction from an input device;

program code means for causing a computer to select a reference frame from the respective displayed frames displayed, when the instruction is accepted;

program code means for causing a computer to determine a plurality of frames to be subjected to strobe composition based on the reference frame; and

program code means for causing a computer to generate a strobe composite image by superposing the plurality of determined frames; and

program code means for causing a computer to determine a switching frame at which a superposing manner is switched, and

wherein the superposing manner is switched between an overlay manner and an underlay manner before and after the switching frame.

Claim 40 (Currently Amended): A program product comprising a computer usable medium having computer readable program code means for causing a computer to generate a plurality of strobe composite images, the computer readable program code means in the computer program product comprising:

program code means for causing a computer to determine a frame corresponding to start points of strobe composition from a plurality of frames of a moving image;

program code means for causing a computer to generate the strobe composite images by superposing frames in turn based on each of the determined start points; ~~and~~

program code means for causing a computer to sequentially display the generated strobe composite images, and

program code means for causing a computer to determine a switching frame at which a superposing manner is switched, and

wherein the superposing manner is switched between an overlay manner and an underlay manner before and after the switching frame.

Claim 41 (Original): A program product comprising a computer usable medium having computer readable program code means for causing a computer to generate a strobe

composite image by superposing a plurality of frames of a moving image, the computer readable program code means in the computer program product comprising:

program code means for causing a computer to input a feature point of an object;

program code means for causing a computer to obtain a locus pattern by tracing the feature point in the strobe composite image; and

program code means for causing a computer to analyze a motion pattern of the object on the basis of the obtained locus pattern.

Claim 42 (Canceled).

Claim 43 (Currently Amended): A computer system comprising:

a processor;

a memory accessible to the processor; and

a software application stored on the memory, wherein the software application comprises:

program code means for inputting a moving image from a camera which captures the moving image;

program code means for holding latest N frames (N is a natural number) of the moving image in a queue;

program code means for accepting a one-click-instruction from a user; and

program code means for generating a strobe composite image by superposing the stored latest N frames in response to the one-click-instruction.

Claim 44 (Currently Amended): A computer system comprising:

a processor;

a memory accessible to the processor; and

a software application stored on the memory, wherein the software application comprises:

program code means for inputting a moving image from a camera which captures the moving image;

program code means for holding latest N frames (N is a natural number) of the moving image in a queue;

program code means for detecting from the latest N frames a feature frame that conforms to a strobe image composition condition; and

program code means for generating a strobe composite image by superposing the latest N frames when the feature frame is detected.

Claim 45 (Original): A method according to claim 1, further comprising:

displaying the strobe composite image;

designating one of the plurality of second frames as a designated frame; and

changing the superposing manner after the designated frame to a manner different from the superposing manner before the designated frame.